

WHAT IS CLAIMED IS:

1. A curable adhesive composition for anchoring materials in or to concrete or masonry comprising:
at least one polymerizable epoxy compound; and
a curing agent comprising at least one aliphatic amine and at least one tertiary amine, said epoxy compound and said curing agent being present in amounts effective to produce an adhesive composition which passes ICBO Heat Creep Test (ICBO acceptance criteria AC58) at 110°F and which passes the ICBO Damp Hole Test at 75°F.
2. The curable adhesive composition of claim 1 wherein said polymerizable epoxy compound comprises at least one compound derived from the reaction of difunctional bisphenol-A and epichlorohydrin.
3. The curable adhesive composition of claim 1 wherein said polymerizable epoxy compound has an epoxide equivalent weight of from about 180 to about 200.
4. The curable adhesive composition of claim 3 wherein said polymerizable epoxy compound has an epoxide equivalent weight of from about 180 to about 190.
5. The curable adhesive composition of claim 1 wherein said epoxy is present in the composition in an amount of from about 20% by weight to about 40% by weight.
6. The curable adhesive composition of claim 5 wherein said polymerizable epoxy compound is present in the adhesive compositions in an amount of from about 70 parts by weight of active components (pbwa) to about 95 pbwa.
7. The curable adhesive composition of claim 1 wherein said curing agent comprises a combination of aliphatic and tertiary amines.
8. The curable adhesive composition of claim 7 wherein said curing agent consists essentially of a combination of aliphatic and tertiary amines.
9. The curable adhesive composition of claim 7 having an epoxy:amine weight ratio of from about 0.5:1 to about 10:1.
10. The curable adhesive composition of claim 7 having an epoxy:amine weight ratio of from about 0.7:1 to about 2:1.
11. A curable adhesive composition for anchoring materials in or to concrete or masonry comprising:
from about 20% by weight to about 40% by weight of at least one epoxy compound derived from the reaction of difunctional bisphenol-A and epichlorohydrin and having an epoxide equivalent weight of from about 180 to about 190; and
a curing agent comprising amine curing agent in an amount sufficient to produce an epoxy:amine weight ratio of from about 0.8:1 to about 1:1, said amine

curing agent comprising at least one aliphatic amine and at least one tertiary amine.

12. The curable adhesive of claim 11 wherein said amine curing agent consists essentially of at least one aliphatic amine and at least one tertiary amine. .
13. The curable adhesive composition of claim 12 wherein said at least one aliphatic amine comprises a first aliphatic amine having a glass transition temperature of from about 130°F to about 135°F and an amine value of from about 400 mg KOH/g to about 500 mg KOH/g and a second aliphatic amine having a glass transition temperature of from about 130°F to about 135°F and an amine value of at least about 550 mg KOH/g.
14. The curable adhesive composition of claim 13 wherein said second aliphatic amine has an amine value of from about 550 mg KOH/g to about 700 mg KOH/g.
15. The adhesive composition of claim 14 further comprising reactive diluent for said polymerizable epoxy compound.
16. The adhesive composition of claim 15 wherein the epoxy:reactive diluent weight ratio is from about 65:10 to about 90:0.5.
17. The adhesive composition of claim 15 wherein the epoxy:reactive diluent weight ratio of from about 70:5 to about 80:0.5.
18. The adhesive composition of claim 1 having a cure time of no greater than about 2.5 hours.
19. The adhesive composition of claim 11 having a cure time of no greater than about 2.5 hours.